AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q90231

Application No.: 10/554,101

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1. (currently amended): A spark plug comprising: an insulator having a through-hole

formed in an axial direction; a terminal attachment disposed on one end side of said insulator; a

center electrode disposed on other end side of said insulator; and an electrically conductive

connection layer disposed in said through-hole for electrically connecting said terminal

attachment and said center electrode to each other, said electrically conductive connection layer

including at least one electrically conductive sealing layer connected to at least one of said

terminal attachment and said center electrode, wherein said electrically conductive sealing layer

is made of electrically conductive glass containing a glass component, and a metal component

which at least contains a comprises Cu-Zn alloy in an amount of larger than 10 mass%.

2. (original): The spark plug as claimed in claim 1, wherein substantially all Zn

contained in said metal component is alloyed.

3. (currently amended): A method for producing a spark plug including an insulator

having a through-hole formed in an axial direction, a terminal attachment disposed on one end

side of said insulator, a center electrode disposed on other end side of said insulator, and an

electrically conductive connection layer disposed in said through-hole for electrically connecting

said terminal attachment and said center electrode to each other, said electrically conductive

connection layer including at least one electrically conductive sealing layer connected to at least

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one of said terminal attachment and said center electrode, said method comprising the steps of:

filling said through-hole of said insulator with electrically conductive glass powder containing

glass powder and metal powder containing Cu-Zn alloy powder in an amount of larger than 10

mass%; and softening said electrically conductive glass powder to form said electrically

conductive sealing layer.

4. (original): The method for producing a spark plug as claimed in claim 3, wherein

said electrically conductive glass powder contains said metal powder larger than 30 mass% and

smaller than 75 mass%.

5. (cancelled).

6. (previously presented): The method for producing a spark plug as claimed in claim

3, wherein said metal powder contains said Cu-Zn alloy powder larger than 50 mass%.

7. (previously presented): The method for producing a spark plug according to claim 3,

wherein said metal powder does not contain any non-alloyed Zn powder.

8. (previously presented): The method for producing a spark plug as claimed in claim

3, wherein said Cu-Zn alloy powder contains 5 to 40 mass% of Zn.

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9. (previously presented): The method for producing a spark plug as claimed in claim

3, wherein said electrically conductive glass powder contains inorganic oxide of semiconductor

as at least one member selected from In, Sn, Cr, V and Ti.

10. (original): The method for producing a spark plug as claimed in claim 9, wherein

said electrically conductive glass powder contains said semiconductor inorganic oxide smaller

than 10 parts by mass when a total amount of said glass powder and said metal powder is 100

parts by mass.

11. (previously presented): The method for producing a spark plug as claimed in claim

3, wherein a mean particle size of said metal powder is not smaller than 5 µm and not larger than

40 μm.

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